

A black and white illustration of a space scene. In the foreground, a large space shuttle is shown from a low angle, moving towards the right. In the background, a smaller spacecraft is visible, firing a laser beam that hits a target, creating a bright explosion. The Earth is visible in the upper left corner, and the sky is filled with stars.

Math Encounter™

MATH ENCOUNTERS™, designed by Professor John Y. Hsu, teaches the player addition, subtraction, multiplication and division.

- 100% written in machine language.
- Seven levels designed for self-learning, testing and entertaining.
- Glamorous colors, asynchronous sounds and fast moving objects.
- 16K and one joystick.

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Math Encounter™

User Guidelines

1. Plug in joystick in port 1. Insert the left cartridge, turn on the power and you will see the title page displayed. The cursor at the left encloses a level number. Push the trigger to select a level number you wish to play which ranges from 1 to 7. Use the joystick to move the cursor to the right to select an operation. '+' means addition, '-' means subtraction, '*' means multiplication and '/' means division. Push the trigger again to start the game. Use the joystick to move the Missile Craft aiming at the command ship and push the trigger to shoot.
2. Levels 1 and 2 are designed for self-learning. The answer always flashes and the player can freeze the screen at any time by pushing the space bar on the keyboard. Pushing the space bar again will continue the game. Levels 3 and 4 are designed for testing the math ability of the player. There will be no distraction while playing. Levels 5 and 6 are designed for fun. The black meteorites are deadly and, therefore, should be avoided. But when they turn into energy pellets, you should move your Missile Craft quickly to grab one in order to add fuel. Shooting is disabled if fuel runs out. Once fuel dips below the 50% level, its color will change and a siren will sound. All stars will begin to flash if shooting is delayed. Then the color of stars will change without flashing if shooting is further delayed. Finally, a 'TIME EXPIRED' message will be displayed if you don't shoot at all. It is considered as a miss. If your

Missile Craft gets hit by a meteorite, it will quietly self-disintegrate but you will see the 'MISSILE GOT HIT' message displayed at the bottom of the screen. It is also considered as a miss. In general, levels 1, 3 and 5 cover easier problems than levels 2, 4 and 6. Level 7 is especially designed for Challengers.

3. The game is over if the total number of hits and misses equals 25. Your score is computed as the total number of hits multiplied by 100 plus some time bonus points ranging from 0 to 99. If your score ranks within the top five, use the keyboard to enter your name up to five characters long and push the RETURN key. Your name and score will enter the Honor Roll and the game will start all over. You can also delete a character by pushing the DELETE key. Note that your score will be followed by an operation symbol and a level number you have just played. At any time while playing, you can push the SYSTEM RESET key to bring back the title page.

Acknowledgement

I would like to thank all of my friends who have helped me in developing this game. The graphic art on the box cover was designed by Rob Sexton and executed by Renny Roberts.

John Y. Hsu

Story of MATH ENCOUNTER™

The enemy has just launched a massive attack with 25 squadrons of space ships. You are the commander of the defensive unit of the HERO Hypersonic Missile Craft. All enemy ships are equipped with a unique secret code. Your mission is to identify the enemy command ship, maneuver your Missile Craft, aim at it and fire the secret code from your laser gun. In order to break the code, the Planetary Intelligence Agency will send you a mathematic message via flying wheels within your scanner range. All of the enemy ships except its command ship are equipped with shields which will protect them from your laser shot. The enemy also changes its secret code and the position of the command ship after each attack you make.

During the attack, your Missile Craft must dodge any black meteorite encountered in space. Occasionally, the meteorite will turn into an energy pellet. When this happens, you should maneuver your Missile Craft quickly to grab the pellet in order to add fuel. Shooting is disabled if fuel runs out. Once fuel dips below the 50% level, its color will change and a siren will sound.

As the enemy squadron approaches the striking distance of your planet, the asteroid will begin to flash and then change color. Failing to shoot in time, shooting the wrong command ship or getting hit by a meteorite will be recorded as a miss. Each time you shoot down the right command ship, the Planetary Council will award you 100 promotion points. Time bonus points will also be awarded if you shoot fast. It is said that no one has ever attained more than 2,500 points. Will you be the first one? Top five players will enter the Honor Roll. Fight well and victory can be yours.